

REMARKS

In the present Amendment, claim 11 has been canceled. Applicants respectfully request entry of the above Amendment, because the subject matter of the claims has been previously considered and it is believed that the Amendment brings the present application into condition for allowance.

Upon entry of the Amendment, which is respectfully requested, claims 1-9 will be pending.

On page 2 of the Office Action, claim 11 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Park et al (U.S. Patent Application 2002/0041043) ("Park").

Claim 11 has been canceled, so the above amendment obviates this rejection.

Reconsideration and withdrawal of the § 102 anticipation of claim 11 rejection based on Park are respectfully requested.

On page 2 of the Office Action, claims 1-4 and 6-9 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ilvashenko (U.S. Patent 6,086,999) ("Ilvashenko") in view of Nakahara et al (U.S. Patent No. 4,123,483) ("Nakahara").

In response, Applicants traverse for the following reasons.

Applicants respectfully submit that there is no teaching, suggestion, motivation or other reason to combine Ilvashenko with Nakahara. The §103 rejection is thus improper and must be withdrawn.

Although the Examiner recognizes that Ilvashenko does not specify an arithmetic mean roughness for the inner wall of the hollow tube, the Examiner maintains that Nakahara teaches that roughness at the interface between the cladding and the sheathing of an optical fiber causes light scattering (col. 1, lines 46-49) which diminishes the fiber's effectiveness. The Examiner

concludes that it would have been obvious to one of ordinary skill in the art to minimize the roughness of the inner wall of the hollow preform taught by Ilvashenko (see page 3, last paragraph of the Office Action).

However, Applicants respectfully submit that Ilvashenko is different from the product taught by Nakahara in terms of their materials and their methods of production.

Referring to col. 1, lines 33-44, Nakahara mentions two methods for preparing an optical waveguide of a fused silica fiber, and both of the methods contain the step of inserting a silica rod inside a silica tube. Therefore, Nakahara merely teaches that roughness, which is observed in the interfaces between the inner wall of the silica tube and the outer face of the silica rod, is caused by the inclusion of air and foreign matter during the production process containing the insertion step, which in turn causes light scattering.

On the other hand, Ilvashenko's product is made of polymer, and more specifically, its transparent sheathing has a sheathing polymer and a sheathing dopant, and its transparent core is formed by polymerization of a solution comprising a polymerizable monomer (for example, please see claim 1 of Ilvashenko). There is no interface between an inner wall of a silica tube and an outer face of a silica rod in Ilvashenko's product. Furthermore, according to Ilvashenko, the core is formed by polymerization of a solution containing a core polymerizable monomer. Therefore, there is no insertion step where a rod is inserted into a tube in Ilvashenko's process.

According to Nakahara's description, the inclusion of air and foreign matter which leads to roughness of the interfaces and causes light scattering is brought about during the insertion step. See Nakahara, col. 1, lines 45-52. Therefore, Nakahara does not teach that roughness of the inner wall of a polymer preform, which is formed by polymerization of a core solution, causes light scattering.

Applicants respectfully submit that a person of ordinary skill in the art at the time the invention was made would not have been aware that the inner wall of Ilvashenko's preform suffers from roughness. Furthermore, Applicants respectfully submit that it would not have been obvious for a person of ordinary skill in the art at the time of the invention to minimize the roughness of the inner wall of Ilvashenko's preform.

In view of the above, Applicants respectfully submit that Ilvashenko in view of Nakahara does not render the presently claimed invention obvious. Reconsideration and withdrawal of the obviousness rejection are respectfully requested.

On page 7 of the Office Action, claim 5 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ilvashenko in view of Nakahara as applied to claim 1 above, and further in view of Chimura et al (U.S. Patent 3,930,103) ("Chimura").

Applicants respectfully submit that Ilvashenko in view of Nakahara as applied to claim 1 does not render claim 1 obvious as discussed above. Applicants also respectfully submit that Chimura does not appear to make up for the deficiencies of Ilvashenko and Nakahara.

Reconsideration and withdrawal of the § 103 obviousness rejection based Ilvashenko in view of Nakahara in further view of Chimura are respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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